CENTER FOR INDUSTRIAL IMAGING

CENTER

The Center was established to commercialize image analysis, data analysis, and artificial intelligence technologies developed in the geosciences. Research at the University on fluid flow through porous media (i.e., aquifers, petroleum reservoirs) has resulted in generally useful image processing, image analysis, data analysis, and artificial intelligence techniques with commercial applications in geosciences and engineering.

TECHNOLOGY

Center technologies include Petrographic Image Analysis (PIA), which comprises four components: image acquisition, image processing, pattern recognition/data analysis, and linking to physical models. Each component involves specialized hardware, software, and expertise. The pattern recognition procedure within PIA has also proven useful in chemical fingerprinting in a variety of geoscience/environmental applications. The Center has begun to explore areas outside geoscience applications, including the application of PIA to medical imaging, and especially to automated screening of prostate biopsies. The Center also has been granted ownership of Integrated Paleontological System (IPS) software for further research, development, and commercialization. The Technical Alliance for Computational Stratigraphy (TACS), a consortium of nine petroleum companies, has been established to fund a three-year commercialization and development initiative.

ACCOMPLISHMENTS

GeoChem Metrix, Inc., was spun-off in September 1998. The company specializes in analysis of chemical data in the context of environmental and toxic tort litigation support. Two new software license agreements were signed with **BP-Amoco Upstream Technology** and **Elf Exploration Production** for the TACS consortium.

CONTACT

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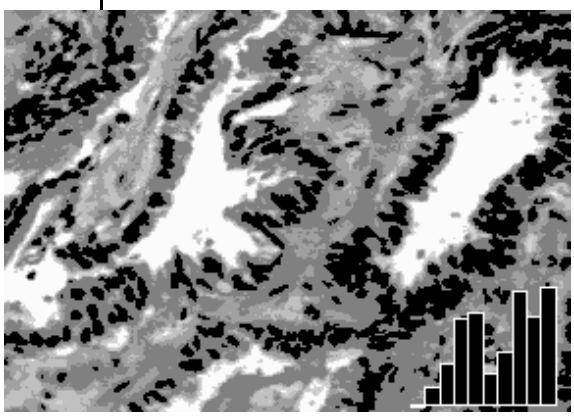
Can You Imagine...

. . . computational software that can automate the process of screening prostate biopsies and identifying suspected cancerous tissue using complex pattern recognition algorithms?

THE CENTER HAS DEVELOPED SOPHISTICATED SOFTWARE TO PROCESS DIGITAL IMAGES AND DO COMPLEX DATA ANALYSIS. COMMERCIAL APPLICATIONS INCLUDE BOTH GEOSCIENCE AND MEDICAL PRODUCTS



- Digitized image of prostate biopsy sample.
- Inset: histogram represents dominant morphologic fingerprint present in this sample.